

REMARKS

This Amendment is being filed in response to the final Official Action on a Request for Continued Examination (RCE), and concurrent with a second RCE, for the present application. The first Official Action of this RCE continues to reject all of the pending claims, namely Claims 1-20, under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 6,330,562 to Boden et al. As explained below, Applicant respectfully submits that the claimed invention is patentably distinct from Boden, and accordingly, traverses the respective objection to the drawings and rejection of the claims. Nonetheless, Applicant has amended various ones of the claims to further clarify the claimed invention. In view of the amendments to the claims and the remarks presented herein, Applicant respectfully requests reconsideration and allowance of all of the pending claims of the present application.

Again, Boden discloses a system and method for managing security objects, including a data model for abstracting customer-defined VPN security policy information. As disclosed, such a model enables a VPN node (computer system existing in a Virtual Private Network) to gather policy configuration information for itself through a GUI or some distributed policy source. The VPN node can then store the policy configuration information in a system-defined database, and use the information to dynamically negotiate, create, delete, and maintain secure connections at the IP level with other VPN nodes.

A. Claims 1-5 and 11-20 are Patentable

As currently recited by amended independent Claim 1, for example, a method of creating and maintaining a centralized key store includes providing a plurality of security policies to be applied to traffic to and/or from a host, each of which includes an application instance identifier associated with a security service. As recited, at least two of the application instance identifiers are associated with different security services that operate according to different protocols at different layers of a multi-layered protocol stack. As also recited, the method further includes creating a plurality of security associations. At least two security associations are created based upon respective, different security services to thereby create a centralized key store including the plurality of security policies and security associations, and at least one of the security

associations is created according to a key management protocol that differs from the protocols according to which the security services operate.

As previously explained, in contrast to amended independent Claim 1, Boden does not teach or suggest a centralized key store with security policies, each of which includes an application instance identifier associated with a security service, or one or more security associations created based upon security service(s) associated with the application instance identifier(s). Boden does disclose abstracting information about connections in a VPN environment, such as between a system using TCP/IP and a system using IPSec. Boden also discloses dynamically generating security policies (IPSec filter rules), such as to accommodate dynamically-assigned IP addresses. In no event, however, does Boden disclose applying a security service other than IPSec such that the security policies include application instance identifiers associated with security services. The claimed invention, on the other hand, recites a centralized key store including a plurality of security policies each of which includes an application instance identifier associated with a respective security service, at least two of the application instance identifiers being associated with different security services that operate according to different protocols at different layers of a multi-layered protocol stack.

In response to the foregoing, the final Official Action alleges that Boden discloses IKE and IPSec, and that IKE and IPSec are security services that operate according to different protocols at different layers of a multi-layered protocol stack. In addition, the final Official Action appears to interpret key management security policies (see FIG. 3, policies 36) and data management security policies (see FIG. 3, policies 58) as corresponding to policies associated with different security services, namely IKE and IPSec. To the contrary, however, we note that IKE is not a security service as is IPSec, but is instead a key management protocol for creating security associations for use in implementing IPSec. In this regard, even if one did argue (albeit incorrectly), that Boden's IKE and IPSec correspond to different security services operable according to different protocols at different layers, Boden does not teach or suggest creating a plurality of security associations, including at least two security associations created based upon respective, different security services, and at least one security association created according to a key management protocol that differs from the protocols according to which the security services

operate, as now recited by independent Claim 1. As indicated, even if one did argue that IKE corresponds to a security service, IKE is a key management protocol for creating security associations; and as such, Boden does not teach or suggest creating any security association according to a key management protocol (e.g., IKE) that differs from the protocols (allegedly IPSec and IKE) according to which the security services operate.

Applicant therefore respectfully submits that amended independent Claim 1, and by dependency Claims 2-5, are patentably distinct from Boden. Applicant also respectfully submits that amended independent Claims 11 and 16 recite subject matter similar to that of amended independent Claim 1, including the aforementioned centralized key store, and application with at least one security association created according to a key management protocol that differs from the protocols according to which the security services operate. Applicant therefore respectfully submits that amended independent Claims 11 and 16, and by dependency Claims 12-15 and 17-20, are also patentably distinct from Boden for at least the reasons given above with respect to amended independent Claim 1.

For at least the foregoing reasons, Applicant respectfully submits that the rejection of Claims 1-5 and 11-20 as being anticipated by Boden is overcome.

B. Claims 6-10 are Patentable

Amended independent Claim 6 recites an apparatus including a processor configured to provide a plurality of security policies to be applied to traffic to and/or from the apparatus. Similar to amended independent Claims 1, 11 and 16, each of the security policies includes an application instance identifier associated with a security service, and at least two of the application instance identifiers are associated with different security services that operate according to different protocols at different layers of a multi-layered protocol stack. As also recited, the processor is configured to apply security services associated with respective, identified application instance identifiers to packets of data, including applying different security services to at least two different packets of data, to thereby transform the packets of data. In this regard, the processor is configured to apply the security services to the packets based upon a plurality of security policies and security associations. The processor, then, is configured to

relay the transformed packets of data to one or more security gateways configured to apply the security services associated with the respective, identified application instance identifiers to the transformed packets of data to thereby generate representations of the respective packets of data.

As indicated above and previously explained, Boden does not teach or suggest a centralized key store with security policies, each of which includes an application instance identifier associated with a security service, or one or more security associations created based upon security service(s) associated with the application instance identifier(s), as recited by amended independent Claim 1 and similarly independent Claim 6. Again noting that the Official Action appears to interpret IKE and IPSec to correspond to the recited security services, even considering this interpretation, Boden still does not teach or suggest applying different security services to at least two different packets of data based upon security policies and security associations to thereby transform the packets of data. As indicated above, even if IKE were generally interpreted as a security service, IKE is not applied to any packet of data based upon any security policy and security association to transform the packet. Rather, IKE is a key management protocol for creating security associations for use in implementing IPSec.

For at least the foregoing reasons, as well as those presented above with respect to amended independent Claim 1, Applicant respectfully submits that amended independent Claim 6, and by dependency Claims 7-10, is also patentably distinct from Boden. And as such, Applicant respectfully submits that the rejection of Claims 6-10 as being anticipated by Boden is overcome.

Appl. No.: 10/608,690
Filed: June 27, 2003
Amdt. dated 10/31/2007

CONCLUSION

In view of the amendments to the claims and the remarks presented above, Applicant respectfully submits that the present application is in condition for allowance. As such, the issuance of a Notice of Allowance is therefore respectfully requested. In order to expedite the examination of the present application, the Examiner is encouraged to contact Applicant's undersigned attorney in order to resolve any remaining issues.

It is not believed that extensions of time or fees for net addition of claims are required, beyond those that may otherwise be provided for in documents accompanying this paper. However, in the event that additional extensions of time are necessary to allow consideration of this paper, such extensions are hereby petitioned under 37 CFR § 1.136(a), and any fee required therefore (including fees for net addition of claims) is hereby authorized to be charged to Deposit Account No. 16-0605.

Respectfully submitted,



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ELECTRONICALLY FILED USING THE EFS-WEB ELECTRONIC FILING SYSTEM OF THE UNITED STATES PATENT & TRADEMARK OFFICE ON OCTOBER 31, 2007.